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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,619	07/25/2001	Tetsuo Taniguchi	XA-8024E	4934

7590

07/19/2002

Mitchell W. Shapiro
Miles & Stockbridge P.C.
Suite 500
1751 Pinnacle Drive
McLean, VA 22102-3833

EXAMINER

FULLER, RODNEY EVAN

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 07/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/911,619

Applicant(s)

TANIGUCHI, TETSUO

Examiner

Rodney E Fuller

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/185,101.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because the abstract exceeds 150 words.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4-7 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. In claim 4 (line 3) and claim 9 (line 3), the limitation "...at a rated maximum frequency" is vague and indefinite and thus renders the claim indefinite.

4. Claims 5-7 depend from claim 4 and therefore include the deficiencies of claim 4.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kamiya, et al. (US 4,853,745).

Kamiya (US 4,853,745) discloses all the structure set forth in the claims. Regarding claims 1-3, 8 and 13-16, Kamiya (US 4,853,745) discloses "...a beam source (Fig. 3, ref.# 200) which emits pulses of an exposure beam in response to trigger signals (Fig. 3, ref.# SS, 201) output at predetermined time intervals; a projection system (Fig. 3, ref.# 110) disposed in a path of exposure beam from the beam source and which projects an image of a pattern formed on a mask (Fig. 3, ref.# M) onto the substrate (Fig. 3, ref.# W), the mask to be disposed on one side of the projection system and the substrate to be disposed on another side thereof; a stage (Fig. 3, ref.# 41) disposed on the one side or the other side of the projection system and which is movable in a scanning direction while holding the mask or the substrate, respectively; and a interferometer (Fig. 3, ref.# 180) connected to the stage and which outputs a measurement value (Fig. 3, ref.# PS) corresponding to positional information of the stage in the scanning direction; wherein" the control of the laser (i.e., a "start timing" and "stop timing") "...is controlled based on the measurement value from the interferometer (column 5, lines 3-7)."

Regarding claims 4 and 9, Kamiya (US 4,853,745) discloses the use of a pulsed excimer laser which can inherently emit "...pulses of the exposure beam at a rated maximum frequency."

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Regarding claims 4-7 and 9-10, it is inherent in any scanning optical system used in photolithography that the exposure amount may be adjusted by adjusting the scanning speed, intensity of the pulses, or adjusting the width of the beam.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

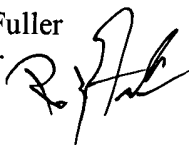
Nishi (US 5,477,304) discloses a scanning optical system that utilizes a control system to control the light source in response to signals from a laser interferometer which monitors the position of a stage.

In the Information Disclosure Statement (IDS), dated July 25, 2001, the applicant indicated the desire to make of record the documents cited in predecessor applications. However, the applicant did not include the references in a current PTO-1449 form. Hence, the examiner has included the references in the current PTO-892 form. (Copies of references are not being furnished).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney Fuller whose telephone number is (703) 306-5641. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams, can be reached on (703) 308-2847.

Rodney Fuller
Examiner



July 11, 2002